

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-71. (Cancelled)

72. (Currently Amended) An inductively coupled plasma CVD processing system, comprising:

a plasma processing chamber;

a planar dielectric window forming a top wall of the plasma processing chamber;

a substantially planar electrically-conductive coil extending across the planar dielectric window, which inductively couples RF energy into the plasma processing chamber through the planar dielectric window and energizes the process gas into a plasma state;

a substrate support mounted in the chamber below the dielectric window and having a support surface facing the dielectric window, the support surface adapted to support a substrate within the processing chamber, the support surface lying in a plane parallel to the planar dielectric window; and

a plurality of injector tubes adapted to introduce process gas into the processing chamber, all of the injector tubes being spaced outwardly from the periphery of the substrate when the substrate is supported on the substrate support, the injector tubes having exit orifices with exit orifice diameters of 0.010 to 0.060 inches.

73. (Cancelled)

74. (Previously Presented) The system of Claim 72, wherein:
the injector tubes are provided on a first gas ring; and
all of the injector tubes are oriented in the plasma processing chamber to direct the process gas along axes thereof that intersect an exposed surface of the substrate at an acute angle when the substrate is supported on the substrate support.

75. (Previously Presented) An inductively coupled plasma CVD processing system, comprising:
a plasma processing chamber;
a planar dielectric window forming a top wall of the plasma processing chamber;
a substantially planar electrically-conductive coil extending across the planar dielectric window, which inductively couples RF energy into the plasma processing chamber through the planar dielectric window and energizes the process gas into a plasma state;

a substrate support mounted in the chamber below the dielectric window and having a support surface facing the dielectric window, the support surface adapted to support a substrate within the processing chamber, the support surface lying in a plane parallel to the planar dielectric window; and

a plurality of injector tubes adapted to introduce process gas into the processing chamber, all of the injector tubes being spaced outwardly from the

periphery of the substrate when the substrate is supported on the substrate support and at least one of the injector tubes including an orifice oriented relative to the axis thereof to direct the process gas in an upward direction away from an exposed surface of the substrate when the substrate is supported on the substrate support.

76. (Previously Presented) The system of Claim 72, wherein the injector tubes are detachably connected to a first gas ring made of aluminum which includes outlets adapted to supply process gas into the plasma processing chamber.

77. (Previously Presented) The system of Claim 76, including a second gas ring disposed above or below the first gas ring in the plasma processing chamber.

78. (Previously Presented) The system of Claim 72, wherein a plurality of gas flows from the injector tubes overlap each other in a plane parallel to an exposed surface of the substrate when the substrate is supported on the substrate support.

79. (Previously Presented) The system of Claim 72, wherein each of the injector tubes includes an exit orifice, and each of the exit orifices is spaced the same distance outwardly from the periphery of the substrate when the substrate is supported on the substrate support.

80. (Cancelled)

81. (Previously Presented) The system of Claim 72, wherein all of the injector tubes have the same length such that exit orifices of the injector tubes are spaced the same distance outwardly from the periphery of the substrate when the substrate is supported on the substrate support.

82. (Previously Presented) The system of Claim 72, wherein some of the injector tubes have different lengths such that exit orifices of some of the injector tubes are spaced a different distance outwardly from the periphery of the substrate when the substrate is supported on the substrate support.

83. (Previously Presented) The system of Claim 72, wherein all of the injector tubes include an exit orifice spaced outwardly from a periphery of the substrate support.

84. (Previously Presented) The system of Claim 72, wherein the substrate support includes means for maintaining the substrate at a desired temperature when the substrate is supported on the substrate support.

85-93. (Cancelled)

94. (Previously Presented) The system of Claim 72, wherein the planar electrically-conductive coil is a single conductive element formed into a planar spiral or a series of concentric rings.